Abstract

Title: Possibilities of monitoring and evaluation of accompanying non-locomotor manifestacions during reflex locomotion according to Vojta

Objectives: The aim of study is to determine suitable conditions for measuring and evaluating non-locomotor manifestations. Furthermore, to clarify whether there are changes in the accompanying non-locomotor manifestations during the stimulation of trigger zones from the concept of Vojta's principle. Accompanying non-locomotor manifestations are mainly manifestations of the autonomic nervous system. Measurement of respiratory rate, heart rate and swallowing rate was chosen to evaluate these parameters.

Methods: The research was conducted on 7 adult subject for measuring respiratory and heart rate and 12 adult subject for measuring swallowing frequency. These were healthy women aged 18-30. Data were obtained from a CamNtech Actiheard compact ECG sensor and from a video recording. Each proband was first measured for a resting ECG and then measured during activaton of the thoracic trigger zone from the Vojta concept, twice in a row for fifteen minutes. One measurement was performed with the eyes open, the other with the eyes closed, the order was randomized. The obtained data were processed into a video recording and evaluated for each proband separately. It was also evaluated statistically. The frequency of swallowing was evaluated only statistically. The total average respiratory and heart rate frequencies were statistically processed using the paired-samples sign test and swallowing using the t-test.

Results: The obtained data show a tendency (however not statistically significant) to increase the average respiratory rate with both stimulations according to Vojta compared to the resting state. In addition, they tend to increase heart rate during open eyes stimulation. Individual results show changes in the character of the breath, in some probands expressive non-locomotor manifestations were found during stimulation. No regularity was observed in swallowing frequency.

Key Words: Vojta therapy, autonomic nervous system, ECG, video recording, CamNtechActiheart